

Amendments to the Claims

This listing of claims will replace all prior versions and listings of claims in the application.

Listing of Claims

1. (Previously Presented) A filter delivery catheter, comprising:
an elongated shaft defining a shaft lumen, the shaft having a proximal end and a distal end;
the elongated shaft including one or more aspiration ports;
the one or more aspiration ports located circumferentially on the elongated shaft at one or more longitudinal positions proximal of the distal end; and
a blood permeable filtration device for trapping debris within the lumen of a blood vessel, the filtration device having an expanded configuration and a collapsed configuration, the filtration device in its collapsed configuration being sized to fit within the shaft lumen;
wherein at least one of the one or more aspiration ports is located proximally of the filtration device when the filtration device is contained within the shaft lumen;
wherein the distal end of the elongated shaft further comprises an operable end cap.
2. (Cancelled)
3. (Previously Presented) The filter delivery catheter of claim 1, wherein the filtration device is enclosed within the elongated shaft proximal of the operable end cap and proximate the distal end of the elongated shaft.
4. (Original) The filter delivery catheter of claim 1, wherein the one or more aspiration ports are located on the elongated shaft proximate the distal end of the elongated shaft and proximal of the filtration device.
5. (Cancelled)

6. (Original) The filter delivery catheter of claim 4, wherein the one or more aspiration ports are located longitudinally on the elongated shaft.

7. (Original) The filter delivery catheter of claim 1, wherein the lumen of the elongated shaft fluidly couples the one or more aspiration ports to the proximal end of the elongated shaft.

8. (Original) The filter delivery catheter of claim 1, wherein the proximal end of the elongated shaft is in fluid communication with a suction providing means for extracting debris from the lumen of the blood vessel through the one or more aspiration ports.

9. (Original) The filter delivery catheter of claim 1, wherein the filtration device is located within the elongated shaft proximate the distal end of the elongated shaft.

10. (Original) The filter delivery catheter of claim 1, wherein the one or more aspiration holes are located proximate the distal end of the elongated shaft.

11. (Original) The filter delivery catheter of claim 10, wherein the one or more aspiration ports are located circumferentially and/or longitudinally on the elongated shaft.

12. (Original) The filter delivery catheter of claim 1, wherein the filtration device is a floating filter.

13. (Original) The filter delivery catheter of claim 1, wherein the filtration device is fixedly attached to a wire.

14. (Original) The filter delivery catheter of claim 1, wherein the debris includes one or more of emboli, thrombi, dislodged tissue, etc.

15. (Previously Presented) A method for extracting debris from the vasculature while delivering a blood permeable filtration device distal of a lesion, said method comprising the steps of:

providing a guide wire with a distal end and a proximal end, and placing the guide wire within the lumen of a blood vessel with said distal end positioned distal of the target site such as a stenosis or a lesion;

providing a filter delivery catheter comprising an elongated shaft having a distal end and a proximal end, the filter delivery catheter further comprising a blood permeable filtration device enclosed within the elongated shaft and proximate the distal end of said shaft, the filter delivery catheter further comprising one or more aspiration ports in a distal region proximate the distal end of the elongated shaft, said aspiration ports in fluid communication with a suction providing means fluidly connected to said proximal end of said elongated shaft;

holding the guide wire stationary and advancing the filter delivery catheter over the guide wire towards the target site, such as a stenosis or a lesion, inducing suction at the proximal end of the elongated shaft while the distal end and the distal region of the elongated shaft comprising the one or more aspiration ports traverse past the target site thereby extracting debris from the lumen of the blood vessel; and

subsequent to the inducing suction step, deploying said filtration device distal of the target site, such as a stenosis or a lesion, in the lumen of the blood vessel by holding the guide wire stationary while extracting the filter delivery catheter from the lumen of the blood vessel.

16-20. (Cancelled)

21. (Previously Presented) The filter delivery catheter of claim 1, wherein at least one of the one or more aspiration ports is located proximally of the filtration device when the filtration device is entirely contained within the shaft lumen.

22. (Previously Presented) The filter delivery catheter of claim 1, wherein all of the one or more aspiration ports are located proximally of the filtration device when the filtration device is contained within the shaft lumen.

23. (Previously Presented) A filter delivery catheter, comprising:
an elongated shaft defining a shaft lumen, the shaft having a proximal end and a distal end;
the elongated shaft including one or more aspiration ports;
the one or more aspiration ports located circumferentially on the elongated shaft at one or more longitudinal positions proximal of the distal end; and
a blood permeable filtration device for trapping debris within the lumen of a blood vessel, the filtration device having an expanded configuration and a collapsed configuration, the filtration device in its collapsed configuration being sized to fit within the shaft lumen;
wherein all of the one or more aspiration ports are located proximally of the filtration device when the filtration device is entirely contained within the shaft lumen.

24-25. (Cancelled)